

REMARKS

Applicants thank the Examiner for the first complete examination of the instant application. Claims 1-28 are currently pending in the instant application. Independent claims 1 and 13 have been amended by way of this amendment. Reconsideration of this application, as amended, is respectfully requested.

Claim Rejections Under 35 U.S.C. § 102(b)

Independent Claim 1 sets forth a combination of limitations including “using a frequency-doubled Nd vanadate laser have the following laser parameters, . . . > 20 kHz for the dielectric layer.” As the Examiner will immediately recognize, independent claim 13 sets forth similar subject matter. Applicants respectfully submit, for the following reasons, that the patent document relied upon by the Examiner to reject claims 1-4 and of 13-15 fails to teach or suggest at least the indicated limitations of independent claims 1 and 13.

Owen et al. teach a method of employing UV laser pulses for forming depth wise self-limiting blind vias in multilayered targets. As is illustrated in Figure 1 of the relied upon patent document, the method includes the use of a laser system 10 that employs an Nd:YAG laser. The laser is used to affect a change in a target 40. The Target 40 includes four layers 64, 66, 68 and 70. The layers 64 and 68 may contain standard metals, such as aluminum, copper, gold, nickel, platinum, silver, titanium, tungsten, metal nitrides, and/or other combinations thereof. (See Column 6, lines 4-7.) The layer 68 is a dielectric and the layer 70 may be a fiber matte.

As is illustrated in Figure 2 of the relied upon patent document, the laser from the laser system 10 is capable of creating a through-hole via 72 and a blind via 74. The laser used to generate the through-hole via 72 and the blind via 74 has a repetition rate of > 200 Hz and up to 6.54 kHz for the layers 64 and 68, and a repetition rate of up to 20 kHz for the layer 66. In distinction, according to the instant claimed dimension, a repetition rate of > 30 kHz is

used for a metal layer and a repetition rate of > than 20 kHz is used for a dielectric layer.

This is a significant difference between the instant claimed dimension and the disclosure of the patent document to Owen et al.

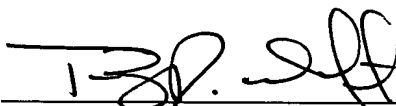
In addition to the above, as is noted from each of independent claims 1 and 13, a laser having a wavelength of 532 nm is used. In distinction, as is set forth in the Abstract of the relied upon patent document, the laser according to laser system 10 uses a laser having a wavelength of < 400 nm. This is again a significant distinction between the instant claimed dimension and the disclosure relied upon by the Examiner.

In accordance with the above, Applicants respectfully request reconsideration and withdrawal of the claim rejection under 35 U.S.C. § 102 (b).

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (703) 668-8000.

Respectfully submitted,

By:  #46,175
Donald J. Daley, Reg. No. 34,313
P.O. Box 8910
RESTON, VIRGINIA 20190
(703) 668-8000